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MACKAY'S MINING HISTORY

THE "HEADHOUSE" *and aerial tramway*

About 3 1/2 miles miles from Mackay up on the "Mine Hill" and visible from town in the light of each morning, sits a very prominent old mining structure. It is as much a sentinel over the town to the South as Mt. McCaleb is to the North. It's known as the **"headhouse"**, or more exactly the aerial tramway "headhouse" loading station, and speaks to the early days of Mackay's storied mining history. Today, a view from nearly any angle bears witness to its age, originally built in 1917--- weathered brown and black boards and timbers of fir and pine, most split and cracked. Its plumb setting emphasizes the steepness of the ore strewn hillside upon which it rests; the rubble evidence of the structure's purpose many years ago.

Though mining activity started on the "Hill" in the 1890's, it had reached a furious pace by 1917. The town of White Knob, located there on the mountain side, was well established by then and boasted a post office, saloons, general store, boarding house and of course a school. It was the center of activity for an estimated 600 miners who were busy reaping the mountain's rich ore deposits of copper and other metals. Since 1905 the "Shay" mountain railroad had been the means for getting ore down the mountain to the smelter. Though fast and efficient enough for mining activity early on, the pace of mining by 1917 demanded a cheaper, faster, and more reliable year-round means of getting ore down the mountain. The Empire Copper Co. felt the answer was an **aerial tramway.** One that connected the mine shafts near the top of the "Hill" to the smelter and mill works at the bottom. According to articles in the Mackay Miner newspaper, the contract was let in June 1917 and the tramway completed and ready for a test run about a year later on July 17, 1918.

This gravity tramway consisted of ore buckets which traveled on a loop of 1 1/4" steel cable over 3 miles in length which was supported on a line of some 36 wooden towers stretching from the smelter site near the river up the "Hill" to the **"headhouse"** loading station. This formidable structure was the key to the aerial tramway's operation and where the buckets were filled with ore before their ride down the mountain to the smelter. The empty buckets entered one side of the headhouse after their up-hill ride and were detached from the 3/4" traveling cable and pushed by hand to an overhead track within the structure and positioned in front of one of ten loading chutes. The loading chutes were supplied from the overhead ore bins kept filled from atop the headhouse. Using mules and sometimes horses, loaded ore cars on tracks were pulled from the mine shafts on the hillside above. The cars traveled the tracks over a covered trestle ending on top of the structure where the ore was dumped from the cars, through "grizzlies"(a sizing mechanism) and into the ore bins and down into the loading chutes. During times of peak activity there might be as many as a dozen men up on top of the "headhouse"dumping the ore cars into the loading chutes.

According to old timers who worked on the "Hill", operation of the tram required a number of men. Generally three within the headhouse; (1) an **"operator"** or supervisor who controlled the operation of the tram, (2) a **"bucket chaser"** who grabbed the incoming buckets as they were automatically detached from the traveling cable, and then pushed them around to the loading chutes, and (3) a **"loader"** who loaded the individual buckets from one of the 10 chutes of the ore

bins above. Each ore bucket had a capacity of 1500 lbs. and once filled was pushed along the overhead track in the headhouse to its downhill side, and attached once again to the traveling cable for the trip down the hill. The traveling cable was controlled by the headhouse **"operator"** who could stop, start, and control the cable's speed with a braking device and had telephone communications with both the smelter and compressor buildings of the tramway system. (See "Headhouse Photo)

The tram required no power source, operating by gravity alone. The weight of loaded ore buckets going down was more than enough to overcome that of empty but often times loaded buckets coming up. A governor mechanism located atop the roof of the headhouse control station compensated for weight differences in uphill and downhill loads. Many of the loaded uphill tram buckets contained supplies and other materials, especially coal used in the compressor building and at the power plant. The system was capable of moving up to 1000 tons of ore per day, with a bucket speed of 500 feet/minute making a round trip, top to bottom and back up again, in about an hour.

In July 1924, according to reports in the Mackay Miner, tragedy befell the mining community when a fire on the "hill"broke out in the commissary building, spread to nearby tram towers and eventually the "headhouse" structure. As townspeople watched the smoke from the scene on the "hill" , the structure was nearly destroyed. Unknown to them at the time , a load of dynamite had just been brought up on the tram and was stored in the headhouse. Heroic efforts by ancestors of som of Mackay"s current residents, hurriedly removing the dynamite, probably saved many a life that da Undaunted by the tragedy, and happy there were no injuries or loss of life, mining officials almost immediately began reconstruction and by September of that same year, the tramway was up and running again. It would continue to serve the mining interests on the "Hill" until about 1940 when most of the system, save the structures , was salvaged. The system was much more efficient and economical than the "shay" and proved to be worth every penny of the original $125,000 it cost to construct it.

Today what remains of "headhouse"loading station is still a formidable sight. Though age and the weathering process have taken its toll on the structure , its demise has been hastened by vandals and the chainsaw of greedy, self-serving souvenir hunters. One only has to look closely to still see the expert examples of timber joinery and craftsmanship of the structure done without benefit of power tools. Though most of the machine workings once located within the building have been taken or salvaged, a look inside reveals much about its function as the primary part of the aerial tramway. And only a few of the wooden support towers of the tram system are left that indicates its route up the side of the mountain.

Presently, efforts are underway to protect and preserve what's left of this and other remnants of Mackay's mining heritage. If you'd like to help please call 588-3148.